

10/507123

Amended claims in response the written opinion

of 15.10.2003 DT09 Rec'd PCT/PTO 10 SEP 2004

1. Acoustic construction element comprising sound insulating cavities (3) having a constant shape along an axis parallel to the exposed surface of the construction element (1), at least part of said cavities (3) being first cavities (3.1.a - 3.9.a) comprising a first portion, situated closest to the external surface of the element (1), having a smaller width than the maximum width of a second, internal portion of the cavity (3.1.a - 3.9.a), and at least part of said cavities (3) being second cavities having a substantially constant width over their entire depth, characterised in that at least part of said first cavities (3.1.a - 3.9.a) and at least part of said second cavities have different depths; at least part of said first cavities (3.1.a - 3.9.a) have different internal volumes and/or different internal shapes; at least part of said first (3.1.a - 3.9.a) and/or second cavities are completely or partially filled with sound insulating material.
- 25 2. Acoustic construction element according to claim 1, characterised in that at least part of the first cavities (3.1.a - 3.9.a) have an angular shape.
- 30 3. Acoustic construction element according to claim 1, characterised in that at least part of the first

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cavities (3.1.a - 3.9.a) have a pseudo-angular shape.

4. Acoustic construction element according to any one
5 of claims 1 to 3, characterised in that at least 90%
of said first (3.1.a - 3.9.a) and/or second cavities
are completely filled with sound insulating
material.

10 5. Acoustic construction element according to any one
of claims 1 to 3, characterised in that at least 90%
of said first (3.1.a - 3.9.a.) and/or second
cavities are partially filled with sound insulating
material.

15 6. Acoustic construction element according to any one
of claims 1 to 5, characterised in that said said
first (3.1.a - 3.9.a.) and/or second cavities are
completely or partially filled with a foamed mineral
20 product.

7. Acoustic construction element according to any one
of claims 1 to 5, characterised in that said said
first (3.1.a - 3.9.a.) and/or second cavities are
completely or partially filled with foamed clay,
25 glass or perlite.

8. Method for manufacturing acoustic construction
elements according to any one of claims 1 to 7,
30 characterised in that said elements (1) are
manufactured in one step process, whereas the sound

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isolating material has a bake curve corresponding to the material from which the acoustic construction elements are made.

5 9. Method for manufacturing acoustic construction elements according to any one of claims 1 to 7, characterised in that said elements (1) are manufactured in a two step process, whereas the sound isolating material is introduced in the 10 cavities in a second process step.

10. Use of an acoustic construction element according to any one of claims 1 to 9, characterised in that said construction element (1) is used as a traffic load 15 carrying construction element.

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